

When in 1862 General von Baeyer founded the geodetical survey of Central Europe, Bruhns, with Nagel and Weisbach as colleagues, was appointed Commissioner for Saxony; and the latitudes and longitudes of the trigonometrically important points in Saxony were determined under his direction. Up to the time of his death he took the greatest interest in geodetical work, to which he devoted much of his time.

The establishment of a network of meteorological observations, extending over the whole of Saxony, was entirely his work. Eleven volumes of results testify to his great activity in this direction. Recognising that a science like meteorology could only be really advanced by the united cooperation of civilised countries, he urged, and successfully carried out, his project for an International Meteorological Committee. His last creative effort in meteorology was the establishment in Leipzig of the Bureau for Weather Prognostics. Bruhns took the most active interest in geographical science. He was also desirous that science should be diffused as much as possible, and made many popular communications upon astronomy and meteorology to different societies.

Besides his numerous astronomical papers, which consist chiefly of observations or calculations, his editorship of geodetical publications, and his eleven volumes of meteorological results, he published a history and account of the Leipzig Observatory, a Life of Encke, and other works. Conjointly with several others, he edited the great biographical work, *Alexander von Humboldt*. The calendar of the Statistical Bureau, the astronomical portion of which was edited by Bruhns, always contained a popular essay on some astronomical subject. Bruhns also published a very convenient table of seven-figure logarithms of numbers, and trigonometrical functions to every ten seconds, which is well known in this country.

He was possessed of great talent for organisation, as was displayed in his arrangements for the German expeditions to observe the Transit of *Venus* in 1874.

Personally, Bruhns was extremely popular, and his loss is keenly felt by his more intimate friends. He died rather suddenly on July 25, 1881. He had been unwell for some time, but it was only shortly before his death that his illness was regarded as serious.

He was elected an Associate of the Society on November 8, 1878.

BARON HERCULES DEMBOWSKI, of Milan, to whom the gold medal of the Society was awarded, in 1878, for his researches upon double stars, died at Albizzate, in Upper Lombardy, on January 19, 1881.

About the year 1852 he commenced, in his own private Observatory at Naples, a series of observations on double and multiple stars, and, being sufficiently favoured by fortune, was

able to cultivate science on his own means, dedicating to it the last thirty years of his laborious life. In his Observatory at Naples the telescope he used was a dialyte of Plössl of only five inches aperture, mounted equatorially, but unprovided with clock-motion or a position-circle. So great was his skill, and such was the accuracy of his eye, however, that the observations made by him are not inferior to any results made at the same time, even with the most perfect instruments.

In 1870 he returned to Milan, and constructed at Cassano Magnago, near Gallarate, a new Observatory, more adapted to his wants, and equipped with an excellent Refractor, of seven inches aperture, by Merz, and a Meridian Circle, by Starke. He made a complete revision of Struve's Dorpat Catalogue; and his observations are not less remarkable for their number than for their excellence. A full account of his work, which was published chiefly in the *Astronomische Nachrichten*, was given by Dr. Huggins, in his address on presenting to him the gold medal of the Society (*Monthly Notices*, xxxviii. pp. 249-253), and it is unnecessary, therefore, to refer to it further here. Of its amount Dr. Huggins said: "If all his observations, which are now scattered through some seventy numbers of the *Astronomische Nachrichten*, were to be collected in one volume, the catalogue would not be unworthy to stand beside the most valued and extensive catalogues of double stars we possess."

Only a small portion, however, of Dembowski's observations has been published, but the complete series has been left to his heirs, with full power to make use of them for the benefit of science. In the *Atti della R. Accademia dei Lincei* for December 4, 1881, Schiaparelli strongly urges the Academy to undertake the publication of these observations, which, he states, are written out in order, and almost ready for the press. They would occupy, he estimates, four quarto volumes, or 1,500 pages in all. In the same number of the *Atti*, immediately following Schiaparelli's remarks, are two letters, from Otto Struve and Mr. S. W. Burnham, both urging the importance of the publication of these observations, and bearing the highest testimony to the accuracy and value of Dembowski's work. Struve writes: "Dans le volume publié par moi en 1878 sur mes propres observations des étoiles doubles et multiples, chaque page témoigne combien les mesures de M. de Dembowski, m'ont été utiles dans les recherches sur les mouvements dans les systèmes stellaires. Et pourtant c'est à peine la quatrième partie de ses mesures qui m'a été accessible, avec beaucoup de difficultés, par les publications occasionnelles, dispersées sur de nombreux volumes des *Astronomische Nachrichten* et en d'autres recueils périodiques. Une publication complète, et dans un ensemble soigneusement rédigé, des observations du Baron Dembowski ne pourrait donc manquer de porter des fruits encore beaucoup plus riches à l'étude de l'astronomie sidérale. Dans ces vues il suffira de signaler le fait déjà autrement connu que, dans ce trésor, il se

trouve entre autres une répétition complète, après un intervalle d'environ 40 ans, des mesures de toutes les étoiles doubles formant l'objet principal de l'ouvrage de feu mon père, connu sous le nom des *Mensuræ micrometricæ*." Struve speaks of Dembowski's observations as being about 20,000 in number, and says that eight years ago he had the pleasure of seeing his manuscript journals, and admiring their order and excellent state.

With regard to the accuracy of Dembowski's work, Mr. Burnham, who, in his letter, offers to prepare the manuscript for the press, writes:—"That he was the best observer who ever lived, in his special department, and in micrometer work generally, will not be questioned by any astronomer who has had occasion to investigate this field." Struve's words are: "S'étant procuré, de ses propres économies restreintes, des instruments de force très modique, il a, en simple particulier, labouré sans relache le même champ de travail pendant 30 ans, en s'appliquant continuellement à porter ses mesures au plus haut degré de perfection;" and in his presidential address, Dr. Huggins laid great stress on "the earnestness with which he sought to attain the greatest precision possible to him."

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JEAN ALFRED GAUTIER was descended from one of the old families of Geneva. One of his ancestors, Jean Antoine Gautier, had occupied himself with astronomy, and on the occasion of the total eclipse of the Sun on May 12, 1706, made the first observations from which the longitude of Geneva could be deduced.

Alfred Gautier was born on July 19, 1793, and was educated at the College and Academy of Geneva, among his professors being M. A. Pictet, Lhuillier, and Deluc. He applied himself especially to mathematics, and, while still quite young, went to Paris, attracted by the reputation of Laplace, Lagrange, Legendre, &c. He profited greatly by the lectures he attended there; but, although he applied himself chiefly to the exact sciences, he did not neglect literary studies. In 1812, at the age of 19, he took the degree of Licentiate in Science at the University of Paris, and in 1813 that of Licentiate in Letters. He devoted the next few years to the production of a work entitled *Essai Historique sur le Problème des Trois Corps*, which obtained for him the title of Doctor, and attracted some notice at the time. In this volume of nearly 300 quarto pages the author gives, in a critical form, the complete history of all that had been written on the reciprocal action of bodies in space, adding original investigations of his own.

After completing his studies at Paris, he visited England, where his reputation had preceded him. He formed numerous friendships, and became especially intimate with John Herschel, who was to become famous like his father. The year that Gautier passed in England exercised a marked influence on all